

DEPARTMENT OF TRANSPORTATION

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December 15, 2014

Jolie Harrison, Chief, Permits Conservation Division
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910

Attention: Shane Guan

Dear Ms. Harrison,

The purpose of this letter is to request renewal of the existing Incidental Harassment Authorization (IHA) issued to the California Department of Transportation (Department) on January 8, 2014, for the San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Safety Project (SFOBB Project).

Construction activities for the replacement of the SFOBB east span commenced in 2002 and are expected to be completed in 2016 with the completion of the bike/pedestrian path and eastbound on ramp from Yerba Buena Island. The new east span is now open to traffic. On November 10, 2003, National Marine Fisheries Service (NMFS) issued an IHA to the Department, authorizing the take of a small number of marine mammals incidental to the construction of the SFOBB Project. The authorization was issued based on information provided in the Department's IHA application submitted to NMFS in September 2001. The Department has been issued seven subsequent IHAs for the SFOBB Project to date.

The Department submitted its most recent renewal application for an IHA to the NMFS, on April 13, 2013. NMFS issued the IHA on January 8, 2014 (2014/2015 IHA), with an expiration date of January 7, 2015. A detailed project description was included as well as monitoring, mitigation, and reporting measures in the April 13, 2013 IHA application and the NMFS' January 11, 2013 Federal Register notice. The SFOBB Marine Mammal Monitoring Plan was revised in 2013 to include dismantling activities and was submitted to NMFS on October 14, 2013.

The current 2014/2015 IHA, issued under the authority of Section 101(a)(5)(D) of the Marine Mammal Protection Act (16 U.S.C. 1316 et seq.), provides for the taking, by level B harassment, of small numbers of marine mammals incidental to the construction/dismantling of the SFOBB. Construction activities that may result in the incidental take of marine mammals include the driving of 0.45-meter, 0.61-meter, 0.91-meter (18-inch, 24-inch, and 36-inch) diameter pipe piles, 0.34 meter (14-inch) H-piles, and mechanical dismantling of marine foundations. The species authorized for take by incidental harassment are the California sea lion (*Zalophus californianus*), Pacific harbor seal (*Phoca vitulina richardii*),

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harbor porpoise (*Phocoena phocoena*) and gray whale (*Eschrichtius robustus*). The current 2014/2015 IHA requires the establishment and monitoring of marine mammal exclusion and Level B harassment zones. The size of the initial exclusion and Level B harassment zones for different types of activities are provided in Table 1 below. The size of the initial exclusion and Level B harassment zones are based on hydroacoustic measurements taken in 2008 and 2009 during the driving of 1.07-meter (42-inch) diameter pipe piles for the Self-Anchored Suspension Span Temporary Towers. Once hydroacoustic measurements of the pile driving of 0.45-meter, 0.61-meter, 0.91-meter (18-inch, 24-inch, and 36-inch) diameter pipe piles, 0.35-meter (14-inch) H-piles, and mechanical dismantling activities have been conducted, the Department will provide NMFS the hydroacoustic measurements along with the initial marine mammal monitoring results. The Department will then revise (reduce) the size of the zones based on the actual hydroacoustic measurements.

Table 1. Temporary Exclusion and Level B Harassment Zones for Various Pile Driving and Dismantling Activities.

Pile Installation Method	Pile Size (in)	Distance to Level B 120 dB RMS (m)	Distance to Level B 160 dB RMS (m)	Distance to Level A 180 dB RMS (m)	Distance to Level A 190 dB RMS (m)
Vibratory Driving	24	2,000	NA	NA	NA
	36	2,000	NA	NA	NA
	H-pile	2,000	NA	NA	NA
Vibratory Driving	Sheet Pile	2,000	NA	NA	NA
Attenuated Impact Driving	24	NA	1,000	235	95
	36	NA	1,000	235	95
	H-Pile	NA	1,000	235	95
	24	NA	1,000	235	95
	36	NA	1,000	235	95
Unattenuated Proofing	H-Pile	NA	1,000	235	95
Unattenuated Impact Driving	H-Pile	NA	1,000	235	100
Dismantling	NA	2,000	NA	100	100

There has been no change in the scope of work for the SFOBB Project from what was outlined in the April 13, 2013, IHA application project description. SFOBB construction activities that may result in the incidental take of marine mammals by Level B harassment consist of: vibratory and impact pile driving, dredging and dredged material disposal, and the dismantling of marine foundations by mechanical means. As discussed in the April 13, 2013, IHA application, a maximum of 2,540 temporary piles may be installed to support all temporary structures required for bridge dismantling.

All or a portion of in water work planned for the dismantling of the Cantilever portion of the existing east span may be performed under the current 2014/2015 IHA. It is anticipated that approximately 200 steel piles are planned to be installed under the proposed 2015/2016 IHA. The April 23, 2012 IHA application included a detailed description of anticipated structures, pile sizes, and pile installation methods.

The estimate of exposures of harbor seals to sound within the Behavioral Harassment Zone is based on a radius of 2,000 meters (6,562 feet) and 128 days of pile driving in 2015 (Table 2). Harbor seal density varies with time of year and area (higher density near Yerba Buena and Treasure Islands, lower density east toward Oakland), densities of 0.02-0.77 seals/kilometers squared (km²) were used for a Behavioral Harassment Zone.

Table 2. Estimated annual exposures of marine mammals to pile driving noise that would exceed the behavior harassment threshold of 120 dB RMS and would be allowed under the IHA.

Species	Estimated Exposures (Behavioral Harassment)
Pacific Harbor Seal	460
California Sea Lion	50
Harbor Porpoise	10
Gray Whale	10

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The Department requests that the IHA renewal be issued prior to the expiration of the current 2014/2015 IHA on January 7, 2015. Should you have any questions or need further clarification please do not hesitate to contact Stefan Galvez, SFOBB Environmental Compliance Manager at (510) 867-6785 or his staff, Okorie Puryear at (510) 286-0987.

Sincerely,

TONY ANZIANO
Program Manager
Toll Bridge Program

By


STEFAN GALVEZ-ABADIA
SFOBB Environmental Compliance Manager

cc:

Shane Guan, Fisheries Biologist, NOAA-Fisheries Office of Protected Resources
Monica DeAngelis, Marine Mammal Biologist, NOAA-Fisheries Southwest Region